**IN THE CLAIMS**

Please amend the claims as indicated by the amended claim set below.

1. (Currently Amended) A method for the determination of variable sag of a supporting element of a support system supporting a subject, comprising:

(a) acquiring an image of a slice of the subject at an imaging position; and

(b) determining said sag of said support element at said imaging position utilizing a quantity of radiation absorbing material, which is large enough and dense enough to create a clear and measurable image in an imaging device.

2. (Original) A method according to claim 1, further comprising adjusting said image to compensate for said determined sag.

3. (Original) A method as in claim 2 in which said acquired image is used for determining said sag.

4. (Cancelled)

5. (Currently Amended) A method as in claim [[4]] 1 in which said quantity of radiation absorbing material is comprised in said supporting element.

6. (Original) A method as in claim 2 in which said acquired image is a CT image.

7. (Original) A method as in claim 2 in which said acquired image is an NM image.

8. (Currently amended) A method for the determination of variable sag of a supporting element of a support system supporting a subject at an imaging position at which an image of a slice is acquired, comprising:

(a) determining the sag of said supporting element at at least one longitudinal position of said supporting element, different from the imaging position of said supporting element at which said image of a slice is acquired, utilizing at least one quantity of radiation absorbing material,

which is large enough and dense enough to create a clear and measurable image in an imaging device, and which is located at at least one longitudinal position different from said imaging position, for determining said sag at said imaging position; and

(b) using said sag determined at said at least one longitudinal position of said supporting element different from said imaging position to determine said sag at said imaging position.

9. (Cancelled)

10. (Original) A method as in claim 8, further comprising adjusting of said image to compensate for said determined sag.

11. (Currently amended) A method as in claim [[9]] 8 in which said image is an NM image.

12. (Currently amended) A method for the correction of the effects of different sags of a supporting element on more than one image of one slice of a subject, comprising:

(a) acquiring at least one image of said slice at an imaging position using a first imaging modality;

(b) acquiring another image of said slice at a different imaging position using a second imaging modality;

(c) determining the sag at at least one of said imaging positions from an image acquired at the other imaging position;

and

(d) aligning said acquired images based on the determined sag.

13. (Original) A method as in claim 12 in which at least one of said images is an NM image.

14. (Original) A method as in claim 12 in which at least one of said images is a CT image.

15. (Original) A method according to claim 14 wherein determining the sag is performed on said CT image.

16. (Original) A method as in claim 12 comprising determining the sags of said supporting element at both of said imaging positions, and aligning said acquired images.

17. (Original) A method according to claim 16 in which said aligning of said acquired images is performed by aligning said images to an arbitrary level.

18. (Original) A method according to claim 12 wherein said sag at one of the imaging positions is assumed to be zero.

19. (Original) A method according to claim 12 wherein the determination of said sag of said slice at one imaging position is performed by calculation based on said sag of said supporting element determined at another imaging position.

20. (Original) A method according to claim 12 comprising the adjustment of said images to compensate for the difference between said sags at said two imaging positions.

21. (Original) A method according to claim 19 comprising the adjustment of said images to compensate for the difference between said sags at said two imaging positions.

22. (Original) A method according to claim 12 wherein at least one of said images is a CT image.

23. (Original) A method according to claim 12 wherein at least one of said images is an NM image.

24. (Original) A method according to claim 12 wherein said image of said slice, of which said sag is determined, is a CT image, and said other image is an NM image.

25. (Original) A method according to claim 24 in which at least one quantity of radiation absorbing material, which is large enough and dense enough to create a clear and measurable image in an imaging device, is used for determining said sag of said supporting element at said position at which sag is measured.

26. (Previously presented) A method for the correction of the effects of different sags of a supporting element on more than one image of one slice of a subject, comprising:

(a) acquiring at least one image of said slice at an imaging position;

(b) acquiring another image of said slice at a different imaging position;

(c) determining the sag at at least one of said imaging positions;

(d) aligning said acquired images based on the determined sag; and

(e) calculating said sag based upon the following model: a support element of length $S$ is extended beyond its base by an extension $a$, the remainder of said support element, which is the supported part of the support element, is of length $L$; the distance of said imaged slice from supported edge of the support element is $Z$; said support element is assumed to be of uniform deformation constant $EJ$ dependent on the material and geometry of the supporting element; the load distribution of the support element with the subject is effectively approximated by an linearly equally distributed weight q along the length of said support element; and using the equation

$$K = \frac{q}{24EJ} = \frac{-W}{L^4\left[\left(4\frac{a^3}{L^3} - \frac{a}{L} + 3\frac{a^4}{L^4}\right) - \left(4\frac{a^2}{L^2} - 1 + 4\frac{a^3}{L^3}\right)\left(1 + \frac{a}{L} - \frac{Z}{L}\right) + \left(1 + \frac{a}{L} - \frac{Z}{L}\right)^4\right]}.$$

27. (Original) A method for the correction of the effects of different sags of a supporting element on more than one image of one slice of a subject, comprising

(a) the accumulation of data from a plurality of various measurements of sag in a plurality of various situations, and

(b) the utilization of said accumulated data to estimate the sag of a slice of a subject in a particular situation.

28. (Original) A method for the correction of the effects of variable sag of a supporting element of a support system on an image of a subject, comprising:

(a) measuring the sag of the support element at a plurality of positions and under a plurality of controlled loads;

(b) storing these sag measurements;

(c) estimating the sag at an imaging position and under the load of a subject using said stored sag measurements; and

(d) adjusting an image taken of said subject at said imaging position to compensate for the estimated sag.

29. (NEW) A method of estimating the sag of a supporting element of a support system of a patient at a first position based on a determination of the sag of the supporting element at a second imaging position of the supporting element that is not adjacent to the first position, the method comprising:

determining the sag of the support system at the second imaging position; and

estimating the sag of the support system at the first imaging position, based on the sag determined at the second imaging position.

30. (NEW) A method according to claim 29 wherein the determination of the sag is based on an image taken at the second imaging position.

31. (NEW) A method according to claim 30 wherein the second imaging position is a position at which a computerized tomography image is acquired.

32. (NEW) A method according to claim 31 wherein the first imaging position is a position at which a nuclear image is acquired.

33. (NEW) A method according to claim 30 wherein the first imaging position is a position at which a nuclear image is acquired.

34. (NEW) A method according to claim 29 wherein the supporting element is attached to a support at a first position thereof, as a cantilever support.

35. (NEW) A method according to claim 35 wherein the first imaging position is nearer to said support then is the second imaging position.

36. (NEW) Imaging apparatus comprising:

a first, nuclear or MRI, imager which produces an image of a patient at a first imaging position along an axis; and

a second, CT, imager which produces a CT image of a patient at a second imaging position axially displaced from the second imaging position;

a table operative to transport a patient substantially along said axis such that portions of the patient are imaged by said first and second imaging positions;

said CT imager being configured and operative to determine sag of said table at said second position from said CT image; and to estimate the sag of the table at the first position from the sag determined at the second position.